

TRANSFORMING THE U.S. ARMY RANGER SCHOOL TO
MEET FUTURE SKILL REQUIREMENTS

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General Studies

by

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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

TRANSFORMING THE U.S. ARMY RANGER SCHOOL TO MEET FUTURE SKILL REQUIREMENTS, by MAJ Howard C. Kirk IV, 62 pages.

The United States Army Ranger School has trained combat leader skills for more than fifty years. While it has successfully adapted and upgraded to modern tactics and equipment over the years, it has recently lagged behind in identifying the new combat skills that will be required for the future operational environment. This has consequently left Ranger School unprepared to incorporate changes to the training program that specifically develop the new skill requirements.

This thesis initially analyzes the conceptual framework of the Objective Force, as well as the future threat environment, to determine the seven combat skills that will be essential for junior leaders in the future operational environment. Next, this project assesses the current Ranger School program of instruction to determine if the training already addresses these skills or if it fails to adequately teach them all. Finally, this study recommends specific changes to the Ranger School program of instruction that will enable development of the skills in each of the students.

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ACRONYMS

APFT	Army Physical Fitness Test
AUSA	Association of the United States Army
C4ISR	Command, control, communications, computers, intelligence, surveillance and reconnaissance
CAL	Center for Army Leadership
CWST	Combat Water Survival Test
DA	Department of the Army
FRAGO	Fragmentary Order
ISR	Intelligence, Surveillance, and Reconnaissance
MDMP	Military Decision Making Process
MOUT	Military Operations on Urban Terrain
NCO	Noncommissioned Officer
POI	Program of Instruction
RTB	Ranger Training Brigade
SAMS	School of Advanced Military Studies
TRADOC	United States Army Training and Doctrine Command
TTP	Tactics, techniques and procedures
UA	Unit of Action
UE	Unit of Employment

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CHAPTER 1

INTRODUCTION

At the tactical level we will maintain our emphasis on excelling in what we have called the short-sword warfight; ultimately, all Objective Force decisive operations are based on success in the close fight--close combat, seizing and controlling key terrain, closing with and destroying enemy forces--elements of warfare that have not--and will not--change. (Shinseki 2001, 4)

General Eric Shinseki, Army Chief of Staff

By making this statement at an Association of the United States Army (AUSA) seminar on 8 November 2001, General Eric K. Shinseki, the Army Chief of Staff, confirmed to the Army that close combat operations will remain the focal point of its tactical efforts in the future. This was an important message, delivered as part of a speech about the progress of the Army's transformation toward an Objective Force, because it recognized the unchanging importance of close combat in the midst of otherwise massive changes to the Army and our way of conducting warfare.

As part of the Army's formal school system, the Ranger School teaches and develops these close combat skills to select junior leaders in combat arms branches. In light of General Shinseki's statement, this school has great importance in preparing junior leaders for future combat. To remain relevant and effective, however, the Ranger School needs to transform along with the rest of the Army in order to provide timely and up-to-date training. Deciding how to transform is the challenge the Ranger School faces today.

Background

General Shinseki started the Army transformation process after assuming his job in June 1999. He initiated the program, along with Secretary of the Army Louis Caldera,

to address shortcomings in the Army's ability to strategically deploy, to sustain the force once inserted, and to maintain a small logistical footprint (Shinseki 1999, 2-3). At the same time, military and government experts completed work on a new assessment of the potential threats facing the nation and the Armed Forces around the world. This analysis revealed many new trends for future conflicts and identified numerous areas in which the Army was unprepared to meet the new threats it would face. General Shinseki explained some of the characteristics of future adversaries in his October 1999 AUSA speech:

We see the world remaining a dangerous place full enough of authoritarian regimes and criminal interests whose combined influence extend the envelope of human suffering by creating haves and have nots. They foster an environment for extremism and the drive to acquire asymmetric capabilities and weapons of mass destruction. (Shinseki 1999, 2)

The military leadership used the self-assessment and the new threat evaluation to create the 1999 *Army Vision*. This bold initiative set the service on a path to "turn the entire Army into a full spectrum force which is strategically responsive and dominant at every point on the spectrum of operations" (Shinseki 1999, 3). By incorporating new technology, adding new doctrine, and providing new equipment and force structure, this program drastically altered the direction and makeup of the Army.

Following the unveiling of the *Army Vision*, the Army worked to turn the concepts of the vision into specific characteristics and defined capabilities. In 2001 it released a white paper entitled *Concepts for the Objective Force*, which elaborated on previous information and supplied details on the specific capabilities the transformed Army would employ by the year 2015. It also revealed the scope of the change by explaining the endstate of the transformation as a force more strategically responsive,

deployable, agile, versatile, lethal, survivable and sustainable than the legacy forces of today (2001, iv).

Although still not specific enough to define the exact pieces of equipment and weaponry or the specific methods that will be used to employ these systems, the white paper and other associated Army transformation publications indicate large-scale changes in organization, manning, equipment, and training that subsequently imply significant differences in the skills, knowledge, and abilities that will be required of soldiers and leaders. Likewise, this transformation will lead to wholesale changes in doctrine and technology; and the tactics, techniques, and procedures (TTP) used throughout the force.

By combining the extensive changes from the transformation process with the new and varied threat environment expected in the future, it is clear that U.S. soldiers and leaders will be operating in an entirely new arena. Each enemy capability and intent must be understood and matched with equally understood systems and methods by leaders in the future force. This combination of new force structure and capability, when pitted against the enemies envisioned in the coming years, can be considered the future operational environment. To be successful, American soldiers and military leaders will be expected to master their roles throughout this environment.

As a means of conducting specific skill training to soldiers in the force, the Department of the Army (DA) offers a number of functional courses that “provide additional qualification training so leaders can acquire requisite skills, knowledge, and behavior needed for specific assignments” (DA PAM 350-58 1994, 9). One such course is the U.S. Army Ranger School, which has served since 1951 to develop combat effective leaders. Known simply as “Ranger School” throughout the Army, it represents a

legacy of very specific combat skill training. This study will use the commonly accepted name Ranger School.

Today, the primary purpose of Ranger School is to “teach and develop combat arms related functional skills relevant to fighting the close combat, direct fire battle” (U.S. Army Infantry School n.d., 1). By its very nature, the school is also a proven small-unit leadership institution. Unlike most other functional schools, this primary purpose allows Ranger School to train junior leaders on necessary skills under combat replicated conditions. The lessons learned from such a course, both in terms of their importance in future combat and the impact of ingraining them through the mental and physical stress of simulated combat, are critical to the success of the Army in the future.

Ranger School accomplishes its purpose through a rigorous 61-day course that progressively develops the combat arms related skills of both enlisted and officer volunteers who are qualified for assignment to units whose main mission is the conduct of close combat operations and the direct fire battle (U.S. Army Ranger School 2002, 3-4). The course provides students with practical experience in applying doctrine, tactics, and techniques to simulated combat operations in wooded, mountainous, and lowland swamp environments. Instruction focuses on the development of individual soldier and leader skills during the execution of dismounted Infantry, Airborne, Air Assault, and amphibious squad, section, and platoon missions. Throughout this process each student is placed under extreme stress in order to develop an ability to function under conditions of heavy mental and physical pressure (U.S. Army Infantry School n.d., 2-5).

The course is divided into three phases of training, each at a different location to enable skill training specific to the terrain in that environment. The initial phase is

conducted at Fort Benning, Georgia, and focuses on basic combat operations at the squad level. This provides the student with a base of knowledge for the entire course and introduces common operations in wooded and rolling terrain. The second phase is held in Dahlonega, Georgia, and serves to introduce students to the challenges of mountain operations and the increasing complexity of section and platoon operations. The final phase is conducted at Eglin Air Force Base, Florida, where the students transition to lowland swamp operations at the platoon level. This final phase also serves as the capstone training event of the course, with an extended field exercise that tests the lessons of the previous phases and challenges the cumulative physical and mental limits of each student as they deal with the continuation of near-combat stress conditions (U.S. Army Infantry School n.d., 5-7).

Throughout the course, each student rotates through individual duty positions within the unit, as well as leadership positions that include team leader, squad leader, platoon sergeant, and platoon leader. In this manner, the students gain a complete understanding of the individual and leader skills that are required for successful unit combat operations. To this framework the school adds continuous operations, long movements, heavy loads, minimal food, insufficient sleep, and complex situational decision making (U.S. Army Infantry School n.d., 5-7). Combined with the harsh environmental conditions, it is readily apparent how this course truly tests the individual abilities of each student and demands an evolutionary development for each of them to ingrain the varied skills required in combat.

Other schools in the Army education system have similar goals and training focus. They all provide an excellent base level of competence for soldiers to execute the

varied duties required of them, but the scope of that training prevents much focus on specific combat skill training. In light of the continued importance of winning the close fight, as emphasized by General Shinseki and supported by history, it is critical that Army leaders receive as much combat focused training as possible. Ranger School is one of the best means of providing this training.

The Problem

Understanding both the importance of Ranger School as a combat skill training ground and the necessity for updating the Army school systems to provide the skill and attribute requirements of the future leads to the realization that Ranger School must transform along with the rest of the Army. At present, the Army Training and Doctrine Command (TRADOC) is implementing new leader development programs within the education system and is exploring many changes and updates to the current school system. However, other than initial analysis by the Ranger Training Brigade (RTB) and the Infantry School, there has not been much work on actually transforming Ranger School.

The Research Question

This thesis addresses the question: How must Ranger School transform to provide the combat arms skills required for the future operational environment?

Subordinate Questions

This primary question naturally leads to many subordinate questions that also require an answer. First, what are the combat arms skills that will be required for the future operational environment? Having already discussed the scope of the future operational environment, there are two tertiary questions that arise: (1) What combat

arms skills will be needed to operate in our new force, and (2) What skills may be necessary to meet threat capabilities in the future operational environment?

The next secondary question is: Does Ranger School specifically teach these identified combat skills? This question also has tertiary queries. Which of the identified skills does it currently account for or fail to address? And what training events, methods, and techniques does Ranger School currently use to train those skills?

The final question is: What training events, techniques, and methods should Ranger School employ as part of an amended Program of Instruction (POI) to teach all of the identified combat arms skills and abilities from question one?

Assumptions

Some basic assumptions help keep this study relevant. First, the role of Ranger School and its basic combat skill related mission will remain constant throughout the Army Transformation. As with many courses in the Army education system there may be changes accompanying transformation, but the overall objective will still be focused on producing junior leaders who have critical skills and abilities pertinent to ground combat. And second, the concepts now associated with the Army Transformation and Objective Force development will not differ greatly from the force that is actually fielded. This ensures the critical combat skills and abilities identified in this study will be relevant when the new force is fielded.

Key Definitions

Combat Arms Skills: This refers to the general skills required by junior leaders of the combat arms branches--Infantry, Armor, Field Artillery, Engineer, Air Defense Artillery, Special Forces, and Aviation--to successfully win the close combat fight.

Ranger School is only open to soldiers occupying or moving into select job positions within the combat arms branches.

Future Operational Environment: The complex environment expected for operations beyond the year 2003, which pits Legacy and Objective Forces against asymmetric and undefined threats throughout the full spectrum of conflict.

Legacy Force: The current Army force, equipped with vehicles such as the M1 tank and M2 Bradley, that will be recapitalized with more modern technology, to include digitization. This force will remain functional until at least the year 2015 (DA 1999b, 6).

Objective Force: The future force, which will consist of entirely new vehicles and technologies. It will be fielded after the year 2010 and will meet the concept requirements identified in the *Concepts for the Objective Force* white paper (DA 2002a, 13-14).

Throughout this thesis, future force and Objective Force are the same.

Limitation

Because the objective force is still in the conceptual stage, this study will not likely identify all the essential combat arms related skills that are needed in the force. As the concepts are turned into reality and objective force units are fielded, there will surely be additional combat arms skills and abilities that are deemed necessary. Future studies can incorporate these skills and abilities into their recommendations, and Ranger School can adopt them in subsequent POI updates as part of its transformation.

Delimitations

This study focuses on junior leaders and the skills and attributes they develop in Ranger School. For the purposes of this thesis, junior leaders are those leaders at company level and below. This specifically includes noncommissioned officers (NCOs)

and enlisted soldiers staff sergeant and below, and officers captain and below. By focusing on junior leaders this thesis will be limited to the tactical level of war. There will be neither an examination of the combat skills or attributes required at the operational and strategic levels of the future operational environment, nor any discussion of how Ranger School impacts those levels of war. Finally, this paper will not address any combat skill requirements for vehicular combat operations. Although mounted forces will certainly need many combat skills in the future operational environment, this study remains focused on the Ranger School environment of light or dismounted combat operations.

Significance

Upon completion, this thesis should provide Ranger School and the Infantry School with a solid foundation for considering changes to their POI. These organizations, along with TRADOC, are constantly attempting to update their instruction to meet changes in the Army doctrine and procedures. Ideally, this thesis will provide an academic approach to looking beyond immediate adjustments to the POI, while addressing the more long-term idea of meeting future combat skill requirements. This is especially important in light of the Army's overall transformation and the need to address the future operational environment.

Summary

Within the framework of the Army education system Ranger school plays a very important role. Other schools teach essential skills, but with the continued importance of the close combat fight Ranger School's emphasis on combat arms skills and the close battle is critical to the development of our junior leaders. However, as the Army

undergoes massive transformation and we adapt to meet numerous threats in a changed world, Ranger School must also change to remain relevant. By answering the subordinate questions already posed this thesis will provide an answer as to how Ranger School must transform to provide the combat arms skills required for the future operational environment.

CHAPTER 2

LITERATURE REVIEW

Introduction

To fully understand the concepts that support this thesis, it is necessary to examine the varied literature that relates to the topic. The information revealed in this review will serve as the common base of knowledge for further analysis. The relevant literature can be separated into three categories:

1. The future operational environment and the future Objective Force
2. Doctrine on junior leader skills
3. Transforming Ranger School

How the Future Looks

General Shinseki addressed the future environment in his 1999 *Army Vision*. He explained in general terms how the military is now facing a more asymmetric and unpredictable enemy throughout the world. In response, he outlined seven characteristics that will guide the development of the future Objective Force -- the force that is tailored to specifically meet the wide demands of this new environment. His requirement is that the force be responsive, deployable, agile, versatile, lethal, survivable, and sustainable. In mastering these traits, he envisions the Army being flexible and dominant enough to succeed at every point on the spectrum of conflict (DA 1999b, 3-5).

In early February 2001, TRADOC released a definitive study entitled *Future Operational and Threat Environment: A View of the World in 2015*. This comprehensive document established the Army's view of the future threat environment and therefore

drove the development of a future force. The authors explain that the strategic landscape will become increasingly unstable as more states and groups become connected and competitive through globalization. At the tactical level this translates into a more complex, technical, and interdependent environment. Soldiers will operate on a more visible and politically charged battlefield in light of increasing media influence and coalition dependence. At the same time, the battlefield effects will be even more destructive and fast-paced as technology becomes available to combatants across the globe (TRADOC 2001, 2-13).

The TRADOC team developed four areas that define the new nature of combat. The first is the physical setting, which will shift toward complex terrain and urban environments, so enemy forces can negate U.S. conventional overmatch and technical superiority. Second is changing capabilities. In essence, a transformed Army will produce drastic overmatch in overall capability, but may be highly vulnerable to attacks during the conceptual integration of all the new equipment and technology or may actually be outmatched by an enemy who chooses to focus on one niche area within the overall proliferation of systems. Third is information's impact on the battlefield. America's increasing ability to gather intelligence and to mass current information presents a terrific opportunity for leaders to make more timely and effective decisions, while also posing the possibility of overwhelming the same leaders in the midst of battle. Finally, the tempo of operations is critical for gaining and maintaining initiative. However, this fact is known to the enemy and will lead them to drastically alter their pace to keep U.S. forces from controlling the tempo indefinitely (TRADOC 2001, 14-18).

Later in 2001 the Pentagon released a white paper entitled *Concepts for the Objective Force*. This document expanded the initial guidance from General Shinseki's *Army Vision* into a conceptual overview of the characteristics and capabilities that the Objective Force needs in order to succeed in the future environment. The paper affirms the future environment established in the TRADOC study and then details the capabilities the force will possess. These include conducting simultaneous and continuous operations, day and night, in every type of complex or closed terrain. The force will have situational dominance due to integrated information networks and unprecedented weapon systems in terms of precision and range. It will also rely on dominant two-dimensional maneuver to provide agile and aggressive actions against enemy weaknesses (DA 2001, iv-3).

At the tactical level the Army will adopt a new methodology of see first, understand first, act first, and finish decisively. Seeing first means acquiring intelligence dominance over an enemy from a position well outside of contact. Understanding first is analyzing the common operational picture driven by our intelligence and making informed decisions on courses of action. Acting first is simply taking information advantage and translating it into rapid combat operations before the enemy can make a move. Finishing decisively is harnessing the collective superiority of U.S. soldiers and equipment to defeat the enemy at hand (DA 2001, 6-8). These tactics represent a profound change in the way the Army fights and implies a new level of competence for junior leaders.

The white paper also emphasizes the human dimension of warfare, which does not necessarily change over time. It states, the battlefield will be "uncertain, mentally complex, physically demanding, and an intensely emotional experience." Soldiers and

junior leaders will need to possess the mental and physical conditioning to persevere under these conditions (DA 2001, 19).

TRADOC continued the Objective Force development process by publishing the *Operational and Organization (O&O) Plan for Maneuver Unit of Action* in July 2002. This document incorporates all previous guidance regarding the Objective Force and establishes the organizational structure of the force while explaining how the units will actually fight. The Unit of Employment (UE) replaces division and corps-like units as a more flexible and adaptive operational level organization. The Unit of Action (UA) will serve as the tactical organization in lieu of typical combat arms brigades and battalions. Similar to the UE, this new framework for the UA will be more responsive, deployable, flexible, and technically advanced (TRADOC 2002, 7-11).

The base structure of the UA will be a combined arms maneuver battalion that incorporates elements from the various combat arms branches and new systems with greatly expanded functional capabilities. Junior leaders in the unit will employ the see first, understand first, act first, and finish decisively approach to tactical situations. This requires situational understanding, rapid assimilation of information, decision making on the move, and the technical and tactical competence to understand and employ all friendly capabilities against identified or created enemy weaknesses. Since these units are organically combined, junior leaders have an inherent responsibility to be experts in all maneuver branches and systems (TRADOC 2002, 33-60).

Other authors, both in and out of the military, have postulated on the future environment and the transformation of the Army. Huba Wass de Czege and Richard Hart Sinnreich published *Conceptual Foundations of a Transformed U.S. Army* in early 2002.

As experienced former Army officers they analyzed the future environment and determined their own set of implications for the development of a future force. They agree with the TRADOC study in stating that unlike most previous conflicts future U.S. battles will be waged primarily on complex or urban terrain in a nonlinear arena with undefined boundaries and more unpredictable enemies. They also come to a profound realization that military operations over the past fifteen years have produced a wealth of information on exact U.S. Army methods of operation that is available to adversaries and open to exploitation. On the other hand, future enemies are far less defined than in the past with unpredictable modes of operation. If for this reason alone, the future force must move away from set piece tactical doctrine to create more flexibility and adaptability within all units (Wass de Czege and Sinnreich 2002, 3-8).

In the close fight, Wass de Czege and Sinnreich propose that the force capitalize on “dominant situational awareness and cooperative engagement from beyond line-of-sight,” to consistently surprise the enemy in more of a constant ambush approach than a head-to-head brawl (Wass de Czege and Sinnreich 2002, 21-22). This requires full utilization of emerging technology to provide junior leaders and soldiers with solid intelligence information and precise weapons that minimize exposure to the enemy.

Major General Robert Scales examines various aspects of the future environment in his book *Future Warfare: Anthology*. A major point of his work is that future tactical success will depend on decentralized operations. The culture in the Army needs to adapt to this requirement, forcing senior leaders to provide detailed intent and then trust their subordinates to execute the mission. For their part, the junior leaders must be mentally

agile to react to changing information and make decisions on a fast-moving battlefield (Scales 2001, 184-189).

In “Infantry in the 21st Century,” Colonel Mark Van Drie studies the battlefield of the future by looking at two specific determinants: the enduring qualities of war that will remain present regardless of time and characteristics that are tied to a particular period of military innovation. The enduring qualities include danger, physical exertion, uncertainty, friction, and fog. The peculiar aspects of the current military environment involve sophisticated equipment and advances in technical effects. These include increased weapons ranges, improved precision of weapons, improved situational awareness, and more flexible maneuver. In light of all these qualities, Colonel Van Drie determined five requirements for the Infantry in the future. He described these essential elements as physical and moral courage, adaptability and tolerance for ambiguity, character and perseverance, endurance and strength, and tactical expertise. He states that future Infantry leaders must master each of these characteristics to meet success on the battlefield (Van Drie 2000, 2-16). Although this study focuses on the Infantry, these are general characteristics that apply equally to all combat arms soldiers and leaders.

Billy E. Wells, Jr. presented a long-term view in his article “The Future of Infantry: Maneuver in the 21st Century.” He explains that new technologies will lead to further decentralization and dispersion of arms. As a result, there will be considerable overlap in the roles and requirements placed on combat units. Each unit will therefore need to be versatile, situationally aware, and responsive to accomplish the myriad missions it could receive. Leaders in these units, down to the most junior NCO, must be more adaptive and able to operate independently within the detailed parameters of their

commander's intent. As individuals, these junior leaders and the soldiers they control must be more resilient than in the past and must possess self-reliance, initiative, and ability to operate for long periods alone or in small groups (Wells 1998, 14-21).

Three officers at the U.S. Army War College produced "Bridging the Competence Gap: Developing Tactical Leaders for the Army of 2015" in 1997. Colonel Stanley McChrystal, Lieutenant Colonel John Gardner, and Lieutenant Colonel Timothy McHale echo many of the predictions for the future environment and also express some of the inherent difficulties for leading in the transformed Army. At the heart of the change will be an expanded and more complex battlespace. This is created by four factors: (1) the rapid advance of information-age technology; (2) the fact that the capabilities and intentions of potential enemies will allow them to often dictate the time, place, and nature of the fight; (3) the fact that the Army will be constrained by nonmilitary players such as the media, nongovernmental organizations, and political bodies; and (4) the realization that new U.S. capabilities may greatly complicate tactical operations. In response, the authors identify four competencies necessary for junior leaders to be effective at the tactical level. These are visualizing an expanded battlespace, processing, synthesizing, and communicating information, decision making with uncertainty, and learning as an individual and an organization (McChrystal, Gardner, and McHale 1997, 5-9).

Major George Glaze focused solely on the complexities of city fighting in his thesis "The Urban Warrior: What Are the Dismounted Infantry Skills Necessary to Survive in Today's Urban Fighting?" He begins the study by stating, "Experts estimate that 60 percent of the world's population will live either in or around urban environments

by the year 2025” (Glaze 2000, 1). This fact, coupled with an apparent trend by recent adversaries to seek asymmetrical advantage in urban locations, leads to the realization that the Army must prepare for even more focus on this particular environment in the future. His study analyzed urban training at the Joint Readiness Training Center as well as the urban warfare training programs conducted in selected U.S. and British Army units. A major finding is that seventy-five percent of casualties in urban fighting occur outside the buildings (2000, 34). This highlights a major weakness in U.S. doctrine because there are no battle drills or specified procedures that cover city terrain outside the buildings. Major Glaze asserts that the Army needs to address this doctrinal shortcoming, but also that advanced marksmanship and tactical movement within the city are the key skills needed for this type of fight (2000, 44-47). It is obvious that urban operations will become more commonplace in the future environment and that junior leaders must receive adequate training in city fighting to prepare them for this eventuality.

Another major, Chester Dymek, produced a monograph at the School of Advanced Military Studies (SAMS) entitled “The Strike Force Leader: Jack of All Trades, Master of All Trades.” He discusses the Strike Force, which is a concept that precedes the Objective Force, but still complements the current development of the Objective Force. In addition to examining the organization and technology of this future force, Major Dymek primarily focuses on the critical thinking characteristics and overall skill requirements that will be different for leaders in the future. He contends that junior leaders will play more important roles in decision making as a result of technology improvements to command, control, dispersion, and decentralization. These leaders will face a broad range of situations, from those with detailed information to those with

completely ambiguous circumstances. The junior leader will therefore have to apply what Dymek calls, “anticipation, imagination, agility, and speed of thought,” to every situation in an attempt to make quick and effective decisions (Dymek 1999, 42-26). This mental adaptability is the overriding skill requirement and the one that may be most changed from that of current leaders. Major Dymek also explains that repetitious and realistic training programs, with varying situational stressors, are the only way to adequately develop the agility of thought that will be required on the future battlefield (1999, 42-46).

Finally, the RTB at Fort Benning, Georgia, has explored the relationship between Ranger training and requirements for future soldiers. Lieutenant Colonel Pound, the brigade executive officer, detailed the particular human factors of war in his 2002 presentation “Contributions of Ranger Training to Army Transformation.” This study categorizes the human dimension of close combat into four areas: (1) biological factors, which include fear and stress, sleep, food and water, and health and fitness; (2) social factors including trust, cohesion, camaraderie, and ethics; (3) military factors, which are training, leadership, teamwork, and character; and (4) the physical environment, which is brutal and hostile, includes first-hand involvement in the direct effects of close combat, and which implies uncertainty and the friction of war (Pound 2002, 8). The RTB leadership understands that this human aspect of war is enduring. Regardless of technological advancements, the combat soldier of the future will encounter all the same human effects as his predecessors faced in war. If anything, these will be exacerbated by additional stresses, which include the effects of improved munitions and increased leader isolation. These factors must be addressed in the development of junior leaders for the Objective Force.

Junior Leader Skills

Current Army doctrine regarding leader skills resides in the 1999 version of FM 22-100, *Army Leadership*. This manual establishes four skill categories that encompass the abilities required by Army leaders at every level. These categories are interpersonal, conceptual, technical, and tactical. Additionally, the manual presents three distinct levels of leadership: direct, organizational, and strategic. The organizational and strategic levels are concerned with indirect and higher level leaders, which precludes them from this research. Since the target group for this study is the junior leaders that populate Ranger School only direct leadership is applicable. This direct leadership involves face-to-face interaction and instant leader to subordinate influence (FM 22-100 1999, Chap. 1, 4 -12).

Returning to the skill categories, FM 22-100 explains the subordinate abilities that direct leaders must master within each group. Interpersonal skills at this level focus on communicating, supervising, and counseling. The conceptual skills are critical reasoning, creative thinking, ethical reasoning, and reflective thinking. The technical skills needed by these junior leaders include knowing equipment and operating equipment, and the tactical skills cover doctrine and fieldcraft (FM 22-100 1999 Chap. 4, 2-13). These are intentionally broad abilities that cover the full range of what a leader must know.

As a separate element of the leadership framework, the current version of FM 22-100 includes three attributes that leaders require for excellence: mental, physical, and emotional (FM 22-100 1999 Chap. 2, 10). In essence, these qualities, possessed in varying degrees by all leaders, serve to influence their actions. As such, they are similar to skill requirements for the development of quality junior leaders.



Figure 1. The Army Leadership Framework. Source: Department of the Army, FM 22-100, *Army Leadership* (Washington, DC: Department of the Army, 1999), Chap. 1, 3.

The Center for Army Leadership (CAL) recently completed a draft concept for an Objective Force leader framework and an Objective Force soldier model. Although still in the development stage, these frameworks provide insight into possible leader and soldier development thought for the future force. Some of this may be included in the future publication of FM 6-0, the manual replacing FM 22-100. The leader framework in this draft document remains much the same except that attributes and skills are combined into a category called competencies and are complemented by the ideas of self-awareness and adaptability. In total, however, this indicates that these overall competencies remain constant and will still be essential for the leaders of the future force (CAL 2002, 1).

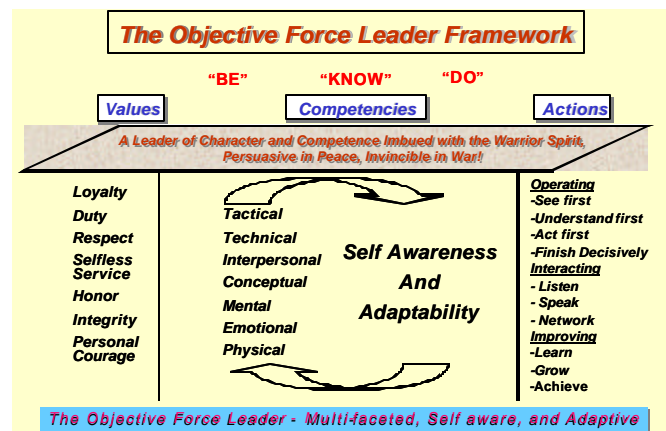


Figure 2. The Objective Force Leader Framework (Nov 2002 draft). Source: Center for Army Leadership, *Objective Force Leader Development Presentation* (Ft. Leavenworth, KS: Center for Army Leadership, 2002), 1.

On the other hand, the draft Objective Force Soldier Model is a completely new development. It highlights eighteen characteristics essential for future soldiers. These cover a full range of qualities, most of which are newly identified as critical at the



Figure 3. The Objective Force Soldier Model (Nov 2002 draft). Source: Center for Army Leadership, *Objective Force Leader Development Presentation*, (Ft. Leavenworth, KS: Center for Army Leadership, Nov 2002 draft), 2.

individual soldier level. As every leader is also a soldier, these characteristics will be equally required of every junior leader (CAL 2002, 2).

Thoughts on Ranger School

Despite the abundance of works on Army transformation and the future force, there has been little examination of transformation in Ranger School. Lieutenant Colonel Frank Helmick, an eventual RTB commander, wrote “The United States Army Ranger Training Brigade: Into the Future,” while attending the Army War College in 1998. He discusses both the history and current format for the course and then delves into areas that require change. Foremost in his opinion is a need to incorporate urban fighting into the curriculum. He understands that military operations in cities are likely to increase and that Ranger School is not presently providing an urban environment for training. He feels that this must change by incorporating urban training into the current phases or through the addition of an urban phase. Lieutenant Colonel Helmick also supports the inclusion of advanced technology into the course as it becomes available. This is important for familiarizing leaders with the equipment, and more importantly, to facilitate the decision making and leader influence that this technology will enhance. Finally, Lieutenant Colonel Helmick reiterates the human dimension of war and highlights the fact that the warrior ethos developed at Ranger School has proven effective for over fifty years. He insists that this focus on human factors and the Ranger culture that is acquired in the course are both essential for close combat operations (Helmick 1998, 14-23).

The only other relevant study is from Major Eric D. Hutchings who wrote “Leadership at the Short End of the Bayonet: The Direction of Leader Training at The U.S. Army Ranger School” while attending SAMS in 1991. He determined that Ranger

School was only partially cultivating the desired competencies of supervision, teaching and counseling, planning, decision making, and technical and tactical proficiency. Other aspects of the school were very effective in their means of producing Ranger graduates, but these specific shortcomings were negatively affecting the leadership quality of the graduates (Hutchings 1991, 38-39).

Summary

The numerous works dealing with the Objective Force and the future operational environment all point to the obvious fact that tremendous changes will place greater demands on the junior leaders of the future. The skill requirements for these leaders will therefore be increased, highlighted by improved ability in agile decision making, information assimilation, and flexible thinking. On the other hand, these leaders will also face human dimensions of warfare that are unchanged over time and that must be sustained through effective training.

These skill requirements, which fall under the realm of Army leadership doctrine, are being updated to provide timely and pertinent support for the development of the future force. The draft Objective Force soldier model and leader framework are examples of this doctrinal transformation.

The lone gap in literature surrounding this topic is found in the works addressing the specific topic of Ranger School transformation. There has been very little study of how Ranger School should change to provide more relevant training to junior leaders. As a result, this thesis may come at an important time. Results from this study will directly help to fill the gap and will possibly help influence the direction of the school in the future.

CHAPTER 3

RESEARCH METHODOLOGY

Introduction

Within the framework of this thesis chapter 1 served to establish the necessity for transforming Ranger School to keep pace and relevance within the Army and to define the thesis question as how must Ranger School transform to provide the combat arms skills required in the future operational environment? Chapter 2 examined the literature surrounding this topic. The next step is to describe the process used to conduct the research. This chapter provides the detailed methodology, in sequential format, for answering the subordinate questions, for conducting analysis, and for linking results to answer the thesis question. Each section in this chapter will outline the research design surrounding one of the secondary questions.

Determining Skill Requirements

To answer the thesis question it is necessary to know what the combat arms skills are that will be required in the future operational environment. There are two subordinate questions that lead to an answer: (1) What combat arms skills will be needed to operate in our new force, and (2) What combat arms skills will be necessary to meet new threat capabilities in the future operational environment?

As stated in chapter 1, all students attending Ranger School are junior leaders. They are either young company grade officers who will be leading platoons or companies after graduation, or they are young enlisted soldiers and NCOs who will serve as team

leaders, squad leaders, or platoon sergeants. The combat arms skills in question are therefore characteristic of those junior leadership positions.

As addressed in chapter 2, FM 22-100, *Army Leadership*, provides the four categories of skills that every Army leader must know. They are interpersonal, conceptual, technical, and tactical (DA 1999, 2-5). This study is focused on junior leaders and can therefore use these skill categories as the basis for identifying future ability requirements.

Taking each of the categories in turn, it is possible to analyze the characteristics of the future force to determine skills that junior leaders will need to either meet those characteristic requirements or to specifically meet a future threat. This process will lead to a solid grouping of skills that meet current doctrine and also address the needs of the future force.

As an additional source of skill requirements, this study will also examine the leader attributes from FM 22-100 and the draft Objective Force soldier model and leader framework that were presented in chapter 2. These will serve as further criteria for assessing particular ability needs. Since the Objective Force leader framework is similar to the current version from FM 22-100, the Objective Force soldier model will better provide competencies for review.

Training Skills for Combat

The next step is to answer the question: Does Ranger School specifically teach these identified combat skills? The subordinate questions include: (1) Which of the identified skills does it currently account for or fail to address, and (2) What training events, methods, and techniques does Ranger School currently use to train those skills?

This portion of the study involves a detailed examination of the Ranger School POI. This document is actually a compilation of all the tasks and actions that are trained in the course. It presents the information in accordance with the Army practice of stating the task or action, the conditions under which it will be trained, and the standard required for successful execution.

The skills from question one will be compared to the POI tasks to determine if the course is presently developing them. This involves analysis in order to relate the POI tasks to a specific skill and to assess the current level of training on each. Any of the skills from question one that are not addressed through the POI tasks will be noted as excluded.

This POI review will also identify the training methods and techniques used to train the skills throughout the course. An understanding of this training methodology will provide a starting point from which to recommend changes.

A New Approach to Training

The last step involves more analysis to determine what training events, techniques, and methods Ranger School should employ as part of an amended POI to teach the identified combat arms skills and abilities from question one. This process basically involves taking the skills derived while answering question one and using them as the desired endstate for continued analysis of the information gathered in question two.

Essentially, the skills identified as necessary for junior leaders in the future operational environment will serve as a destination, and this analysis will create a roadmap for how to produce those skills. Answering question two may show that maps already exist for training some of the abilities, but even these may be amended to

incorporate new doctrine or technology. Otherwise, using previous training methodology as a baseline, the intent is to develop techniques and methods for effectively training these skills. These may include drastic changes to current or past procedures or may even involve completely new approaches to training. In any case, the process will include a broad view of all aspects of Ranger School and will produce a final picture of how Ranger School may need to look in the future.

The final chapter of the thesis will include recommendations based on the analysis of the research questions. This will provide the specific ways that Ranger School should consider transforming in order to provide combat arms junior leaders with the skills they need for combat in the future operating environment.

Summary

By using this methodology for answering each of the secondary questions, it is possible to systematically create a solution to the thesis question. Answering the first two secondary questions involves extensive use of supporting resources while the third question requires mostly analysis and creative thinking. In the end, this process will lead to a focused result that can be readily considered by the leadership of both Ranger School and the Infantry School.

CHAPTER 4

ANALYSIS

So far in this thesis chapter 1 provided background on the problem under study, chapter 2 examined the theory and literature surrounding the subject, and chapter 3 outlined the framework for conducting analysis and developing recommendations. This chapter provides the specific analysis needed to answer the subordinate questions, which in turn help determine how Ranger School must transform to provide the combat arms skills required in the future operational environment.

Skills for the Future

It is first necessary to determine what combat arms skills will be required in the future operational environment. This must be considered in terms of skills needed specifically for operating in the future force as well as skills needed to specifically meet some form of future threat.

Using the methodology described in chapter 3, this question is answered by using the skill and attribute categories from the Army leadership framework in FM 22-100, *Army Leadership*, and the draft Objective Force soldier model competencies as criteria for selecting specific combat arms skills. Once again, the intent is also to select only skills that are pertinent to junior leaders in the close fight.

Interpersonal Skills

Looking first at interpersonal abilities, it is readily apparent that junior leaders will need improved communications skills for the future battlefield. General Shinseki has specified that because of the availability of information, dispersion, and the pace of

operations, U.S. forces will change from plan-centric to intent-centric operations (DA 2001a, v). This will enable quicker execution on the battlefield, but will also require more precise communications. As stated in *Concepts for the Objective Force*, leaders “must be able to clearly define their information requirements and, most importantly, develop and effectively communicate their intent” (DA 2001a, 7).

Under current doctrine, company commanders and above prepare a commander’s intent as part of the Military Decision Making Process (MDMP). FM 101-5, *Staff*

Organization and Operations, defines this commander’s intent as:

A clear, concise statement of what the force must do to succeed with respect to the enemy and the terrain and to the desired endstate. It provides the link between the mission and the concept of operations by stating the key tasks that, along with the mission, are the basis for subordinates to exercise initiative when unanticipated opportunities arise or when the original concept of operations no longer applies. (DA 1997, Chap. 5, 9)

In the Objective Force this commander’s intent will likely remain a formal aspect of the MDMP, but a general intent will also serve as a means for leaders at every level to issue mission type orders with a clear explanation of that leader’s desires for the endstate. These mission type orders are important for allowing decentralized small unit initiative and for dispensing instructions under time constraints. Subordinates will be able to execute their mission based solely on a firm understanding of their boss’s intent and some agile decision making on what course of action to follow to meet those guidelines.

For a junior leader, then, this skill is considered communicating intent. All leaders carry a responsibility for effective communication, but this skill moves further and encompasses the leader’s ability to grasp his unit’s role in the higher mission, to discern what his subordinate elements must do to help his unit achieve its objective, and then to

clearly explain this mission to those subordinates in a manner that enables initiative in execution. This equates to the adage, tell them what to do, but not how to do it. On a fast-paced battlefield where the subordinate units may be dispersed on decentralized missions this ability to communicate intent through written word, over a radio, or in person will be critical. This is not something regularly practiced by junior leaders today, but must become a routine skill in the future.

Conceptual Skills

There are three skills that fall under the conceptual category. The first can be described as information control and synthesis. This broad characterization involves a leader's ability to think in relation to information already received, information coming in, and information that may be needed. *Concepts for the Objective Force* declares, "The information revolution, with the promise of accelerating breakthroughs for surveilling, understanding, and communicating, is expected to create a base of knowledge for military planning and execution unprecedented in scope, volume, accuracy, and timeliness" (DA 2001a, 3). In harnessing this base of knowledge leaders will be in a position to conduct analysis and understand first, which is an essential component of the Objective Force tactical framework.

To begin with, the junior leader must possess a clear understanding of the tactical situation at hand. The intelligence system of the Objective Force, collectively called command, control, communications, computers, information, security and reconnaissance (C4ISR), is purposely designed to "provide the means for forces at all levels to achieve situational understanding, and establish, maintain, and distribute a common operational picture tailored to unit and mission" (DA 2001a, 10). This common picture is the key to

collective situational awareness and is a driving component in the overall Objective Force tactical approach of seeing the enemy first, understanding first, acting first, and finishing decisively (DA 2001a, 6-8).

General(R) Wass de Czege and Colonel(R) Sinnreich go further and state that dominant situational awareness is one of the two central features that the Army must capitalize on to win the close fight in the future. They explain that having dominant situational awareness over the enemy “will allow friendly units to move through a battle area dispersed without loss of speed and coherence, achieve firing positions undetected, and thus produce engagements in which the first awareness of contact . . . is his attack by lethal fires” (Wass de Czege and Sinnreich 2002, 22).

Clearly, a junior leader must be adept at managing his current information to retain complete situational understanding. This information may have come from digital sources, radio, or even first-hand knowledge, but is dependent on the mental storage efficiency of that leader to recall and relate existing data.

It is a slightly different thought process, however, to manage the receipt of new information and to synthesize the necessary data to update situational awareness and begin the process of analyzing possible actions. In an Army with ever-accelerating technology, the ability to receive and sort new information offers the potential for information dominance over the enemy, while also serving as a possible Achilles heel for the leader who is unable to keep up with the inflow or to assimilate the actual data.

The authors of “Bridging the Competence Gap: Developing Tactical Leaders for the Army of 2015” explain that leaders will face a difficult task in managing the high-speed systems that are intended to improve their control of events. They may be the

“recipients of a critically important, yet potentially bewildering avalanche of information,” that must be correctly interpreted in a timely manner to positively affect the battle (McChrystal, Gardner and McHale 1997, 11-12). Technology offers the possibility of helping to filter or arrange information for the leader, but this still requires a complete understanding of the system capabilities. Otherwise, the leader is dependent on his mental ability to sort and synthesize the information.

Major Chester Dymek points out that even though our current systems are increasing the flow of data, “The additional information has not led to a subsequent growth of knowledge because there appeared to be no increase in speed of human thought. Data alone is not knowledge. Information alone is not thought” (1999, 20-21). This highlights the crucial fact that future operations will still be limited by the pace at which the leader can receive and synthesize the information needed to make decisions. Improvements in cognitive ability will therefore increase the speed at which junior leaders can effectively process information.

As a final aspect of this skill, the leader will need to understand what information he does not have that is essential to the mission. In this sense, he must have assimilated all current intelligence and determined where gaps exist. In the big picture, this may be the most important aspect of information control because it drives the leader’s ability to direct his C4ISR assets and to identify where his current actions may be flawed because of insufficient battlefield intelligence.

In sum, information control and synthesis demands that a junior leader understand what information is currently available, quickly and effectively sort through new information as it arrives, assimilate all information to derive its value to the mission, and

then identify specific information shortcomings that must be alleviated. Only through possession of this skill will future leaders be able to develop situational dominance and informational advantage on the battlefield.

A separate conceptual skill with similar mental fundamentals is rapid tactical decision making. This skill encompasses a leader's ability to quickly capitalize on information, develop and assess courses of action, and make sound decisions in the midst of changing conditions and fast moving operations. *Concepts for the Objective Force* specifies, "Leaders must be educated for rapid synthesis of information, intuitive assessments of situations, and rapid conceptualization of friendly courses of action" (DA 2001a, 7). This ability sets the conditions for effective decisions and actions.

Although decision making is by no means a new concept, the speed of action on future battlefields demands that rapid tactical decision making be highlighted as an essential leader skill. McChrystal, Gardner, and McHale explain that speed has always been a critical aspect of warfare and that our future systems will drastically improve the pace at which we execute. They state, "By 2015 the speed of combat will reflect the inherent mobility of modern equipment accelerated by information technology assisted planning, coordination and execution" (1997, 14). The information technologies alone will enable a tremendous increase in tempo, but any advantage may be lost if no decision is made to use our responsive strike assets. In a manner much the same as information control and synthesis then, "The implications for the relative criticality of the Commander to assess and decide rapidly, with incomplete information, are tremendous" (1997, 14).

To make these decisions our leaders will have to improve cognitive skills through training and repetition. Major Dymek explains “decision makers develop from novice to expert ability through disciplined mental training designed to improve memory, focus on problem identification, and examine complex situations” (1999, 33). These specific traits are therefore critical as a cognitive foundation, but must also be continuously improved upon to produce speed and reason in decision making.

This skill also implies that the result of any rapid decision is a sound course of action. In the future operational environment junior leaders will have a host of factors to consider that will significantly compound the choices. General Shinseki and the Army leadership clearly visualize the Objective Force as capable of operating on every point of the spectrum of conflict. Junior leaders will have to master peacekeeping and humanitarian operations on one end, with full-scale war on the other. Each of these brings variables and unique conditions that may cloud a decision. It is often easy to see the tactical factors that weigh on a decision in full-scale war, but more difficult to appreciate factors such as the media, public opinion, political sensitivity, ethnic issues, religious differences, nongovernmental players, and multinational operations that influence the rest of the spectrum. Leaders must prepare for decision making along the complete scale of operations for as the future force becomes more dispersed and decentralized every junior leader has the potential to make a decision with tactical, operational, or strategic implications (DA 2001a, 19).

While this ability to conduct rapid tactical decision making may be a continuation of the previous information skill, it is still a separate and essential component of a junior leader’s conceptual skill foundation. To capitalize on situational dominance and to act

first at the time and place of choice requires junior leaders to have confidence and expertise in this critical ability.

The third conceptual skill is operating with uncertainty. This skill is necessary to face changes in the operational and threat environment. It involves the ability to act decisively with incomplete information while accepting that all operations are undertaken in an environment made intentionally chaotic and deceptive by the enemy.

This skill may initially seem counterintuitive in that a major premise of the two previous skills is information dominance on the battlefield, and that a conceptual basis of the Objective Force is an ability to reduce uncertainty through C4ISR systems. This is true, but in reality there is no way to completely erase uncertainty from the battlefield, and even a reduction will leave some ambiguity for a leader.

Even with improved Objective Force systems, uncertainty will arise from incomplete intelligence, non-functioning components, individual failures, enemy actions, and especially the fog and friction of war. Clausewitz described this aptly by stating, “War is the realm of uncertainty; three quarters of the factors on which action in war is based are wrapped in a fog of greater or lesser uncertainty” (1984, 101). The Objective Force seeks to greatly limit this uncertainty but will never succeed in removing all the fog and ambiguity that has circled warfare for centuries.

Additionally, uncertainty on the battlefield will grow more commonplace as a result of our adaptive enemies. The TRADOC study *Future Operational and Threat Environment: A View of the World in 2015* describes this likely enemy intent.

He will develop patterns of operation that will change as he achieves success or experiences failure in engagements. . . . He will conduct decentralized, dispersed or distributed operations in an attempt to throw U.S. units off balance. . . . In

general, today and for the foreseeable future, the disposition of enemy forces, as well as close combat means and methods will be less predictable. This increased unpredictability, coupled with the difficult nature of the environment, will create uncertainty. (TRADOC 2001, 15-16)

This practice alone will interject ambiguity into a leader's conscience, but the TRADOC authors go further by indicating that the Objective Force may be more susceptible to these enemy actions than Legacy forces. They claim that the enemy will produce even more uncertainty "in an 'informational/network-centric force' with total situational awareness as one of its principal operating constructs, than in forces conditioned to less detailed views. The enemy will exploit this fact" (TRADOC 2001, 16).

The enemy will also employ deception, camouflage and subterfuge to add uncertainty to the battlefield. "Deception operations . . . will be focused on convincing U.S. commanders that conventional tactics are being employed, thereby making them vulnerable to unconventional actions and formations" (TRADOC 2001, 16).

Since uncertainty has been a characteristic of war for generations, and America's enemies will seek to create it at every opportunity, junior leaders must therefore possess the skill to operate despite it. On one hand, they must understand that it is an inevitable aspect of war that they must always consider, while on the other hand understanding their own mental processes and natural inhibitions in dealing with it.

Colonel McChrystal and Lieutenant Colonels Gardner and McHale explain the process of operating with uncertainty.

It must be understood and factored into decision making instead of reduced or ignored. Further, individuals must learn to analyze uncertainty in the light of wider systems that normally produce it and develop the mental flexibility to

continually update their assessments and actions in the light of constantly changing, and often unpredictable conditions. (1997, 28)

Clausewitz simply states, “A sensitive and discriminating judgment is called for; a skilled intelligence to scent out the truth” (1984, 101). This active search for truth in the midst of battlefield turmoil may be enough to find direction when needed.

Though living in separate times and wording their ideas differently each of these authors agree that a leader must take direct action to face uncertainty and continue operating despite its prevalence. Junior leaders, in particular, must not allow indecision to negatively affect their initiative, tempo, or momentum. They have to understand the consequences of bowing to ambiguous situations while realizing the need for confident action. Operating with uncertainty means they take decisive action based on the best information available while consciously addressing the enemy’s ability to create ambiguity throughout the battlefield.

Technical Skills

Junior leaders will certainly be expected to master the technical skills associated with their job. Continuous advancements in technology may require constant learning and updates. This comes as a result of continued improvements and in a trend toward combined arms operations and multifunctional systems and jobs. In particular, the Army must demand that junior leaders become fully competent on the information systems that will serve as the hub for see first, understand first, act first, and finish decisively tactics.

However, these technical skills will be directed toward individual systems or pieces of equipment. For the purposes of this analysis these skills are too narrow and individually applicable for consideration as necessary collective abilities.

Tactical Skills

On the other hand, the junior leaders of the Objective Force will have two critical tactical skill requirements. Neither of them is new, but both are key abilities that will be highlighted on the future battlefield.

The first is understanding the physical environment. At first glance this appears to be a basic training skill. Soldiers are taught from day one to use terrain to their advantage, read a map, and how to gauge trafficability and protection. Yet this only scratches the surface of what future leaders must know.

Understanding the physical environment means knowing how terrain and geographic environments will affect selected actions and how to maximize terrain advantages during all operations. This understanding must occur in relation to both friendly and enemy operations. We must know exactly how the physical environment will influence friendly and enemy maneuver, weapons effects, and systems functionality. Success at the tactical and sometimes operational level is often dependent on this knowledge.

The technology of the Objective Force will allow for multi-dimensional maneuver over any type of terrain, and in any weather or light condition (DA 2001a, iv). This concept makes terrain a decisive factor of employment, and this force capability implies that our leaders will have the skill to deal with implications from the physical environment during planning, decision making, or execution.

The *Operational and Organizational Plan for Maneuver Unit of Action* specifically addresses the need for all leaders to appreciate the impact of the physical environment. It states, “UA leaders must: know terrain and leverage it to achieve

positional advantage; understand how to achieve freedom of maneuver through the use of terrain” (TRADOC 2002a, 25). As the UA conducts dispersed operations over vastly expanded battlespace these abilities are essential.

In fact, the advent of new technology makes this skill more important than ever. As computer systems begin to display and analyze forces and terrain it is important to retain human comprehension of the physical environment to fully appreciate how it affects operations. Even specialized software that graphically enhances and evaluates terrain cannot provide the analysis that is needed from humans. Yet our digital command posts and leader displays will likely push further toward reliance on computer maps, three-dimensional interactive diagrams, and virtual terrain representations, instead of toward conceptual evaluation of the physical environment. It is imperative that junior leaders use these tools only to assist in the mental evaluation of environmental effects.

Another aspect of the physical environment that must remain at the forefront of consideration is the enemy’s capability for using it. Future threats will all make an effort to fight on terrain that they choose. *Future Operational and Threat Environment: A View of the World in 2015* reveals the scope of this effort.

We must also remain cognizant that adversaries will not remain fixated on a single physical environment once advantage is lost. Should U.S. forces become optimized for close combat in complex terrain, for example, it is likely that a threat would try to move the battle to another physical environment where an advantage could be gained or a U.S. advantage is negated. In other words, advantage will likely not be founded solely in technology in the future as our opponents move to environments for which those technologies are not optimized. (TRADOC 2001, 8)

This obviously shows that U.S. forces must be prepared to fight on any terrain, which the Objective Force is tailored to do, and that leaders must therefore be

knowledgeable about the tactical and operational impacts that any physical environment may have on the force. Just as it has been important to military leaders throughout history, understanding the physical environment will remain a fundamental skill for every leader in the future.

The next tactical skill is also related to the physical environment, but is more narrowly focused. This skill can be described as urban expertise. It involves a complete understanding of urban combat tactics combined with knowledge of the urban environment and the effects it imposes on military operations.

Junior leaders today are pushed to understand Military Operations on Urban Terrain (MOUT), but only at the level of mastering the battle drill to enter and clear a room. This leaves the leader and his soldiers well prepared for clearing the inside of a building, but does not begin to impart on them the larger tactical considerations and the need to comprehend urban effects on the battle.

This skill is becoming more important as populations around the globe continue to migrate toward cities. The TRADOC study of the future operational and threat environment declares, “This trend toward urbanization will continue, and in the next 15-20 years, 60 percent of the world’s population will likely live in urban environments” (TRADOC 2001, 5). Further, “Increased urbanization almost guarantees that part of any future conflict will occur in an urban environment, regardless of the level of conflict” (2001, 5).

Analyzing the capabilities of potential adversaries provides additional reason to focus on urban terrain. Again, the TRADOC study provides some insight.

Our adversaries have discerned our difficulties in applying current operating systems in complex terrain and urban settings. . . . Without new technologies, urban and complex terrain will degrade ISR, target acquisition, and precision standoff engagement. This factor coupled with the rapid urbanization of most societies indicate that for the foreseeable future there is a high likelihood that opponents will use complex terrain and urban settings to obtain an advantage or offset the advantage of a U.S. force. (TRADOC 2001, 8)

This leaves little doubt that U.S. forces will be engaged in city fighting in the future. Junior leaders must prepare for this by moving beyond their comfort zone of clearing rooms in a building. They must initially expand their tactical focus to include a consideration of the three dimensions of combat in a city. This appears common sense given the dangers of mutually supporting tall buildings, but current U.S. forces still have problems mastering this concept. In recent MOUT experiments over seventy-five percent of the casualties sustained in a fight came from poor tactical understanding and execution outside of the buildings (Glaze 2000, 46). This needs to change by having junior leaders master the tactical considerations of the entire city, not just the inside of buildings.

Another aspect of this tactical consideration is a full comprehension of enemy abilities within the city. Leaders have to expect that the enemy will use the height of buildings and towers to their advantage, and that they will also probably use tunnels, sewers, and subways as well. If the leaders understand the possibilities of how the enemy will fight they can prepare tactical means to counter those options.

The junior leader will also need to understand urban effects. This means the leader has expertise to recognize the potential effects of weapon systems and munitions in the city. Depending on the type of construction, some ammunition and explosive devices may not have their desired effect, or they may be too excessive against other types of construction. Hand grenades and large-caliber bullets may be more dangerous to

friendly troops in a shantytown of wooden buildings than they are to the enemy. This level of knowledge must be applied before and during these operations.

This expertise also means the junior leader realizes potential effects on friendly systems. Because of the density and construction of the buildings, communications are often restricted in a city fight. Many C4ISR systems will also be severely degraded, if not rendered useless, in the confines of a complex MOUT environment. And electronic and physical clutter within the city, whether from intentional electronic means or from rubble buildings, will hamper all systems and all mobility (TRADOC 2002a, 18). The junior leader in the close fight must understand this implicitly.

Fighting in cities will never be reduced to a calm and surgical procedure at the level of the close fight. However, junior leaders can significantly impact the efficiency, smoothness and overall success of a city fight by possessing urban expertise. This ability to master the tactics of urban warfare, while fully understanding the city environment and how it effects operations, will greatly improve the overall competence of junior leaders.

Objective Force Soldier Model

While the soldier model lists all of the essential characteristics of soldiers in the Objective Force, one of them stands out as an especially critical trait for future junior leaders. This is the skill of displaying physical and mental toughness--the ability to endure extended physical and mental hardship in the face of extreme stress and responsibility. This skill is also a composite element of current leadership doctrine, which specifies that leaders need to possess mental, physical and emotional attributes (DA 1999a, Chap. 2, 10-18).

This skill has certainly been important for every military leader in history, but the ever-increasing duty expectations for junior leaders in future close combat adds emphasis to its importance in the Objective Force. It is also pertinent to reestablish this as a critical leader skill for the future force because of a renewed understanding of the significance of the human dimension of war.

Essentially, *Concepts for the Objective Force* reminds the Army that despite technology advances and the reliance placed on future systems, success on the future battlefield will still ultimately be dependent on humans. The soldiers and leaders who face the physical, mental, and emotional demands of the complex future battlefield provide a human dimension to combat that is undeniably the most important (DA 2001a, 19). Junior leaders, who are expected to set the example and lead from the front, will therefore bear the greatest mental and physical burdens in guiding their soldiers to victory.

The TRADOC study of the future environment provides a dramatic view of just how dominant this human factor will be, and how essential it is for leaders to have the physical and mental capacity for withstanding intense hardship.

Close combat in the future will be much more dynamic, lethal and unpredictable. It will possess greater intensity, increased tempo, and greater uncertainty, placing increased value on the human dimension in relation to the technological dimension. It will also contain greater psychological and emotional impacts. . . . It will require mature leaders with superb cognitive and reasoning skills who are masters of battlefield tactical calculus and are both mentally and physically tough. (TRADOC 2001, 14)

Clearly, junior leaders will be expected to operate in a more difficult battlefield environment and will have to face many new operational challenges. To retain their ability to function in the midst of this high-technology fight they must have a trained and

tested body and mind that can withstand all pressures in the execution of their mission.

Physical and mental toughness, although a very common sense trait, will be an essential hallmark of junior leaders in the future.

In all, this analysis process has revealed seven combat skills that will be required for the future operational environment. There are undoubtedly many more that will be needed, but these represent the seven that are most critical and broad in defining the overall abilities that will be necessary. The following table summarizes each skill.

Table 1. Required Combat Skills

1	Communicating Intent	Clearly expressing a vision of a unit's mission in terms of the enemy, the terrain, and friendly forces, while enabling subordinate leaders to determine their specific course of action based on this general intent.
2	Information Control and Synthesis	Understanding what information is currently available, quickly and effectively sorting through new information as it arrives, assimilating all information to derive its value to the mission, and then identifying specific information shortcomings that must be alleviated.
3	Rapid Tactical Decision Making	Capitalizing on information, developing and assessing courses of action, and making sound decisions in the midst of changing conditions and fast moving operations.
4	Operating with Uncertainty	Acting decisively with incomplete information, while accepting that all operations are undertaken in an environment made intentionally chaotic and deceptive by the enemy.
5	Understanding the physical environment	Knowing how terrain and geographic environments will affect selected actions, and how to maximize the use of all terrain.
6	Urban expertise	Demonstrating a complete understanding of urban combat tactics, and knowledge of the urban environment and the effects it imposes on military operations.
7	Physical and Mental Toughness	Demonstrating an ability to endure extended physical and mental hardship in the face of extreme stress and responsibility.

Ranger School and Combat Skills

Next, it is necessary to determine if Ranger School is presently teaching these seven combat skills. There are two subordinate questions that require answers. Which of the identified skills does it currently account for or fail to address? And what training events, methods, and techniques does Ranger School currently use to train those skills?

The current POI provides details on every task trained during the course, which in turn collectively support the development of skills. Starting with the seven skills already identified, it is therefore possible to determine if the tasks in the course currently support these skills, and what methods and techniques the school uses to teach them.

Communicating Intent

Each of the phases incorporates lengthy field problems during which students rotate through leadership positions. A specific task in each phase is for the student leaders to develop and communicate a plan (U.S. Army Ranger School 2001, 31, 63, 84). Since there is no doctrinal use of a commander's intent below company level, these platoon and squad missions in Ranger School do not include intent in the plan. Otherwise, there is no specific mention of intent in the POI.

The aspect of communicating a plan does somewhat facilitate development of communicating intent, though. As students learn to be clear and concise in presenting their plan they are learning critical communications skills that can be applied to intent-based operations at a later time.

There is also ample opportunity to incorporate intent into mission execution. The school issues regular fragmentary orders (FRAGOs) in the middle of missions to force the student leaders to quickly change plans. This is a prime opportunity for the school to

give an intent based mission change and for instructors to then guide the student leader into understanding that higher intent and into developing his own intent-based orders.

Information Control and Synthesis

There are no tasks in the POI that specifically address this skill. Student leaders inherently analyze available intelligence when developing a plan, but there are no tasks that direct the control or synthesis of information. Also, students learn the action of collecting information during the task reconnoiter area, but there is no associated leader task for assimilating that information (U.S. Army Ranger School 2001, 36).

Rapid Tactical Decision Making

This skill is stressed repeatedly throughout the course. As already stated, students must develop and communicate a plan in every phase. This requires the students to make regular tactical decisions. However, the school also uses various training techniques that support development of rapid tactical decision making. Students are often given FRAGOs in the middle of operations that require complete changes of plan. Instructors apply strict time constraints to the process and often dictate incremental enemy responses to further complicate the student decisions. In this manner they can stress the quickness of decisions and influence outcomes based on the soundness of the tactical choices.

A multitude of other tasks also support this skill. Most of the tasks required during execution of the field problems incorporate some aspect of decision making. These include perform actions at danger areas, perform point ambush, perform raid, perform air assault, and literally dozens of others (U.S. Army Ranger School 2001, passim). Each of these has inherent requirements for the leader to make decisions based

on the tactical situation. And once again, the instructors facilitate the learning process by altering the conditions at every decision point.

Operating With Uncertainty

There are aspects of this skill that are inevitably present throughout the course. Students are constantly faced with situations where they face incomplete information and unpredictable enemy actions. Instructors understand this fact and still emphasize the need for decisive action and reasonable decision making.

There are no tasks in the POI that specifically relate to this skill, but the prevalence of uncertainty throughout the missions provides plenty of opportunity to train on it. If anything, the school needs to formalize some of the uncertainty and have instructors facilitate student actions in the midst of intentionally ambiguous situations.

Understanding the Physical Environment

This skill is also addressed through many of the tasks in the POI. While developing and communicating a plan the students must conduct terrain analysis and evaluation. The task of move tactically also requires the student to analyze terrain and use it advantageously. And many of the execution tasks have imbedded terrain considerations. These include: perform actions at danger areas, perform raid, execute assault, and many others that require leaders to consciously address terrain in the placement of their forces (U.S. Army Ranger School 2001, 68-71).

The school also covers important aspects of this skill in the specialized instruction each phase presents on their unique environments. The Fort Benning phase teaches fundamentals of patrolling and the general considerations for all terrain, the Mountain phase teaches techniques for mountainous operations and basic military mountaineering

operations, and the Florida phase teaches waterborne and lowland swamp operations (U.S. Army Ranger School 2001, 34, 57, 60, 78). This information provides the students with a basic level of understanding for planning considerations and environmental effects in each of these distinct physical areas.

While the course provides training on the aspects discussed so far, it does not fully address the deeper aspects of this skill. There are no formal requirements for the student to understand the overall battlespace, to analyze the enemy view of the terrain, or to fully assess the impacts of terrain on all friendly activity. Individual instructors may facilitate training on these areas, but there is no common focus on providing this instruction. There are also occasions in the course where students are indirectly taught bad habits regarding terrain. Because of administrative factors that limit training spaces, or external conditions like weather that cause training modifications, the students are occasionally allowed or even forced to execute missions that violate common terrain sense or allow for potential fratricide through poor positioning or orientation. These cases are an exception to the norm, but still pose problems for the common instruction of understanding the physical environment.

Urban Expertise

This is another skill that is not covered in the POI. The only reference to an urban environment is from the task move tactically, which states that a route may include movement in a built-up area. There are also one or two single-room buildings on some of the raid objectives during the course, but these do not adequately train urban expertise or MOUT considerations.

Physical and Mental Toughness

Of all the skills in question, this one has consistently received the most focus at Ranger School. The current POI specifies numerous physical and mental tasks, including: combatives, physical fitness training, rifle bayonet fighting training, the Army physical fitness test (APFT), the combat water survival test (CWST), a water confidence test, the Darby Queen obstacle course, and a 14.5-mile timed footmarch (U.S. Army Ranger School 2001, 18-49). In addition, this skill is continuously trained during the field exercises by having each student carry heavy loads over long distances, while operating with inadequate food and sleep and facing constant enemy contact (U.S. Army Infantry School n.d., 5). Ranger School continues to understand the importance of ingraining this skill in combat leaders.

A New Training Program

To provide all seven of these identified skills, Ranger School will have to employ new training events, techniques, and methods in an amended POI. In some cases, this may simply involve changes to current procedures, but in other cases it will require a completely new approach to training. This portion of the analysis provides a discussion of training that may facilitate the development of these skills, but the real answer to this secondary question is provided as recommendations in the next chapter.

In general, most of these skills will be developed through scenario-driven exercises during the field problems, along with specific instructor mentoring. Ranger School already conducts lengthy tactical exercises in every phase, each with their own tactical scenario and training objectives. This process must continue, but must also be enhanced with specific situations that are tailored to stress and teach these skills.

Since all of the skills involve a significant mental foundation, these new scenarios must increasingly train and improve the cognitive abilities of the students. As Major Dymek explained, the only way to improve the cognitive element is through repetitious and realistic training (1999, 39). This fits right in with the Ranger School approach of consistent combat replicated stress and intensity. Creating and inserting planned situations will force the students to learn these specific skills.

The only skill that is not completely addressed through scenario-driven training is urban expertise. This ability will require an entirely new training approach and some completely new facilities. As important as this skill is, students in the school must be able to conduct some operations and deal with some situations in an urban environment.

Summary

The analysis in this chapter reveals that there are seven critical combat arms skills required for the future operational environment. These do not account for individual technical skills on the various pieces of new equipment, but they do serve as common baseline abilities that all junior leader will need to possess in the Objective Force. These skills are communicating intent, information control and synthesis, rapid tactical decision making, operating with uncertainty, understanding the physical environment, urban expertise, and physical and mental toughness.

When comparing these skills to the current Ranger School POI, it is evident that the school does not presently address communicating intent, information control and synthesis, or urban expertise. It also provides inadequate focus on operating with uncertainty. Otherwise, the present POI has a strong foundation in rapid tactical decision making, understanding the physical environment, and physical and mental toughness.

To adequately train these skills the school will need to adopt a number of new scenarios and situational exercises that specifically stress those abilities in the students. The school must also find a way to incorporate urban training into the course. These changes, when coupled with focused instructors, will enable a modified Ranger School POI to better serve the Army by effectively teaching these critical combat arms skills.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

This final chapter concludes the project by providing recommendations on training events, techniques, and methods that Ranger School should employ as part of an amended POI to teach all of the identified combat arms skills and abilities from chapter 4. Having already answered the other secondary questions, this leads to a final conclusion on how Ranger School must transform to provide the combat arms skills required in the future operational environment. Appendix A supplements this chapter by summarizing the linkage between these recommendations and the specific combat skills identified in chapter 4.

Improve the Tactical Scenarios

Initially, Ranger School should improve the tactical scenario for each phase. The existing versions must be expanded to include battlefield complexities, such as interspersed civilians, neutral combatants, and unconventional opposition groups. These should be introduced over time, culminating in the final phase with a realistically tough and complicated tactical situation.

Additionally, the cadre must provide more emphasis on the tactical scenario for the duration of each phase. Currently, there is a natural trend for both students and instructors to gradually lose focus of the overall tactical scenario as they get into a daily mission routine. This is driven by the regularity of the twenty four hour instructor cycle, the frequency of student leadership changeover, and the repetitive nature of the missions, which all serve to narrow student and instructor focus to that day's particular mission.

This tendency is exacerbated for students when they spend a few days as a rifleman in between leadership positions and usually lose their understanding of the higher situation and their unit's role in the larger mission.

The school must counter this trend by increasing instructor interaction regarding the friendly and enemy situation on a daily basis. They must ensure that student leaders fully grasp and consider the overall situation during any planning process and that the leaders disseminate a situational update to every member of the unit along with basic operations orders. Instructor supervision of this process is the only way to ensure continuity of operational awareness for all students, which enables the building of situational understanding during the missions. This, in turn, is a necessary stepping-stone toward the inclusion of the remaining recommendations for skill-building measures that are all founded on a thorough understanding of the tactical situation.

The effect of these enhancements to the tactical scenarios will be to improve the students' appreciation of the complexity of modern combat and to set conditions for adding other events that develop the future operational environment skill set. In essence, this thorough situation and scenario awareness serves as the foundation for increased skill training just as it serves as the bedrock of tactical operations.

Improve Intelligence and Tactical Information

Ranger School has recently begun providing limited photographic intelligence to student leaders as they plan for some of the missions. This practice must be expanded and more thoroughly developed to include comprehensive target information, virtual terrain products, and real-time intelligence. These will all stimulate growth of students'

information control and synthesis skills and will facilitate the use of decision making, operating with uncertainty, and understanding the physical environment.

The school currently teaches students to conduct a leader's reconnaissance as the primary means of gaining intelligence on an objective. This is effective and must be maintained as a basic skill, but after that initial instruction and practice the students should be provided with incremental amounts of intelligence through the phases. This data should begin with basic target information and simple photos that allow for more detailed planning and should expand to finally include real-time intelligence updates enroute to the objective. These updates could be passed over the radio from cadre who are role-playing a higher headquarters, or could eventually be provided in hard copy from an instructor replicating a transmission or display from a future live data system.

Having quality initial intelligence products for the planning process will energize many of the student leader skills. Detailed information about the enemy, routes, and objectives will enhance the students' decision making as they develop a course of action. Terrain products will force the students to consider the terrain in depth, and when coupled with instructor mentoring serve as a prime opportunity to generate better understanding of how terrain may affect every aspect of the operation. And providing a baseline of intelligence about the operation gives the students a start point to identify where there is uncertainty and how it should be managed during the operation.

Additional intelligence during the mission should obviously teach the students to effectively synthesize and control information. They will have to manage existing knowledge while assimilating new information and determining what else they still need to know. Updating the intelligence picture will also force rapid decision making and

conscious awareness of continued uncertainty. These are all difficult mental processes that can be greatly improved through repetitive and stressful training.

Increase FRAGOs and Situational Exercises

Most of the skills required for the future operational environment can be trained by means of frequent situational exercises that are incorporated into the field problem in each phase. The current exercises follow a predictable routine whereby a student chain of command is established each morning to plan a mission and begin movement, after which a new chain of command is inserted to complete the movement and the actions on the objective. After those actions are complete the same chain of command may lead the unit to the night's patrol base or a new chain of command may be put in solely for that movement. This pattern is consistent throughout the exercises and the predictability can be further strengthened when previously recycled students provide input on specific details of each mission. This all leads to somewhat of a mental comfort level for the student leadership as they come to expect only a requirement to plan a mission, control a unit during actions on the objective, control a unit during movement, or possibly react to simple enemy contact. The immense physical and mental stress of the course makes every leadership position difficult, but the simplicity of the tactical leader requirements leaves room for added complexity that will develop more mental skills.

In particular, the regularity of the operations should be interrupted by more frequent mission changes, FRAGOs, and shifting situations. Instead of the student leader following a common timeline, using only basic tactical skills and relying primarily on a knowledge of standard operating procedures, he should be tested through difficult and continuously changing situations that require agile thought and decisive action.

One method is to increase the number of FRAGOs given during the mission. These will force the leader to make frequent and rapid tactical decisions and serve as opportunities to train many other skills as well. A short suspense may cause the leader to concentrate more on developing and expressing his intent to subordinates than on creating a directive course of action. Intentionally vague or incomplete intelligence may cause the leader to adjust his plan while still operating with known or unknown uncertainty.

Another technique is simply to alter the tactical situation by providing new intelligence or by having the opposing force take proactive steps to influence friendly actions. Each of these would require the leader to make rapid tactical decisions while adapting to the change. They would also demonstrate the need to adjust a plan or execute a branch based on changes to conditions or events. An improved tactical scenario also makes this possible by adding variables to the battlefield that can be altered to facilitate frequent decision making, changing intelligence, continuous uncertainty, and a need to update and communicate intent. Examples of this include placing noncombatants on an objective, having civilians interfere with an operation, or having the enemy completely deviate from an expected course of action.

A final option is to give the opposing force more freedom to think and react directly to the student units. This should be reserved for the last phase and should be dependent on the performance of the student platoon. Such live action by the enemy would certainly promote realistic decision making from the students, but it would also have to be managed by instructors to maintain safety and quality of training.

The sum effect of adding more FRAGOs or unexpected situations will be to quickly develop the specific combat skills from chapter 4 that have been identified for the future operational environment. The students will face more challenging leadership positions and more complex and unpredictable tactical circumstances, which directly stress those skills. There is also the potential that this increased number of events may allow for more frequent changes of student leadership, resulting in more opportunities for students to fill that role and gain experience. There are many administrative challenges to such a change, but the benefits to the students seem to warrant examining this possibility.

Add Urban Operations

Ranger School has previously experimented with an urban combat phase, and has recently explored possibilities for adding urban operations to varying degrees, but there is presently no means of effectively training the students on urban combat. This must change to provide the students with a fundamental understanding of urban expertise. This skill is certainly taught and developed in other courses, and especially within each combat unit, but it must be included in Ranger School to maximize the benefits of simulated combat conditions, experiential learning, and dedicated instructors.

As prevalent as urban warfare will be in the future, it is critical that the students gain experience in learning the tactics and effects of combat in cities. This may be from occasional urban missions within each phase, or from a dedicated and intensive phase that is focused solely on urban operations. In either case, the instruction needs to focus on the overall leader requirements for understanding the urban environment and the tactics that have proven successful, instead of just specific techniques, tactics, or procedures for how to conduct certain tasks within the fight.

Enhance Instructor Interaction

As mentioned previously, instructor interaction is essential when adding training that targets a specific skill. The instructors in the RTB are all highly experienced and competent soldiers and steps must be taken to ensure their knowledge and expertise is passed to the students. They need to be constantly reminded and pushed to refrain from just evaluating student performance, and instead consciously develop these skills in every leader they encounter.

Unlike many of the tasks that students learn and are evaluated on, there is no way to produce criteria for evaluating the performance of these skills. Instead, the instructors have to intentionally mentor the students through the application and growth of these skills in the midst of their other duties. This requires the cadre to be validated on these skills in their own right and implies a need for them to move beyond rote knowledge of the Ranger Handbook and Army doctrine and assume the role of teacher and mentor while guiding the students to an understanding of each skill, why it is essential, and how to develop proficiency through repetition and realistic application.

Regardless of how many changes are made to the POI, or how many situations are added that provide opportunity to train a student on these particular skills, it is only through the guidance and supervision of proactive instructors that a student will develop these necessary combat skills. The instructors must understand and accept their responsibility in this process.

Sustain the Physical and Mental Rigor

Ranger School must maintain the physical and mental stress that has served as its foundation for decades. Despite the fact that technology advances are placing different

demands on junior leaders, there is still a fundamental imperative for junior leaders to be physically and mentally indomitable. The curriculum must continue to provide stressors that push students to their limits.

The physical requirements of the course are more than adequate now. The movement distances, soldier loads, course duration, and physical terrain are all effective at setting a standard for physical endurance and challenging the students to meet it. The mental rigors are equally difficult, but can be enhanced through the addition of the events already described. These will add to the mental pressures by increasing tactical decision requirements, promoting use of new skills, increasing leadership opportunities, and by reducing time spent as a member of a squad that has limited mental requirements.

Conclusion

Ranger School is a tremendously effective and important institution for developing junior leaders who possess the combat skills and leadership abilities needed to survive on the battlefield. As the Army undergoes change in the form of improved capabilities and a different threat, Ranger School must adapt to train the new skills that will be essential for close combat in the future. The six recommendations offered in this chapter are critical for developing the specific combat skills that are required for the operational environment in years to come. Most are easily implemented and will have immediate effect in forcing students to understand and grow those skills. Yet even the difficult notion of adding urban training to the course is undeniably important and must be addressed. Failure to adapt the course of instruction to meet the requirements of the future battlefield will cause Ranger School to lose relevancy and effectiveness in training the junior leaders who will fight in the close battle.

CHAPTER 6

TOPICS FOR FUTURE STUDY

While this thesis has provided specific recommendations for changing the Ranger School POI to meet new skill requirements, it has also opened the door for further study on specific aspects of the school or related areas that merit similar examination. The following questions require further research and investigation:

1. How can Ranger School effectively incorporate urban operations into their POI? This study requires financial and organizational analysis of the RTB to determine the best way to add new urban facilities to each phase or to create a new phase dedicated to training on urban operations. It also requires an evaluation of urban training doctrine to find the most effective and efficient means of including this training.

2. How must the RTB certify instructors to understand the future operational environment and the skills that are required in that environment? The RTB currently has an excellent certification process for its instructors, but they may need to take new steps to ensure the cadre is competent on the specifics of the future environment, the Objective Force, and the future threat expectation. This is necessary to effectively train students on the skills required in the future operational environment.

3. Should the RTB change the current student grading and leadership policy? The school currently has requirements for each student to pass a certain number of graded leadership positions in each phase and in the entire course. Further study should investigate the effects of eliminating the graded leadership requirement, of increasing the number of leadership positions each student occupies in the course, and of increasing

instructor interaction with the student leaders. This research must assess the difficulties this implies with cadre manning and operations, as well as will the overall course standards, but should be directed at finding way to increase the time students spend in leadership positions in the course.

4. What will be the role of Ranger School in the transformed Army education system? As the Army continues to change current education institutions and systems, it will eventually alter the capabilities of the students that are entering Ranger School. The improved Officer Education System and Noncommissioned Officer Education System will produce graduates who may have significantly different abilities and combat skill proficiency than those of today. For instance, Army officers have recently begun attending the Basic Officer Leadership Course prior to their basic branch officer course. This new school process may enhance the overall abilities of the students and may therefore affect the level at which Ranger School can start teaching combat skills. Research in this area should look to see if Ranger School's role as a functional school may change in light of the new education systems, and if so, how it should transform to still provide effective combat skill training.

APPENDIX A

LINKAGE OF RECOMMENDATIONS TO COMBAT SKILLS

<u>Recommended Action</u>	<u>Linkage to Combat Skills for the Future Operational Environment</u>
Improve the Tactical Scenarios	<ol style="list-style-type: none"> 1. Creates appreciation for the complexities of the modern battlefield, which is a fundamental of all the skills. 2. Sets the foundation for adding the remaining recommendations by ensuring every student has a grasp of the overall situation throughout each field exercise, and by ensuring that the scenarios are realistic and comprehensive.
Improve Intelligence and Tactical Information	<ol style="list-style-type: none"> 1. Directly trains information control and synthesis. 2. Forces or enhances rapid tactical decision making. 3. Alters the uncertainty facing the student leader, which influences his ability to operate with that uncertainty. 4. Facilitates an understanding of the physical environment by providing products or forcing examination.
Increase FRAGOs and Situational Exercises	<ol style="list-style-type: none"> 1. Provides opportunity for understanding and then communicating intent. 2. Requires information control and synthesis. 3. Forces rapid tactical decision making. 4. Requires operating with uncertainty. 5. Require frequent assessment and understanding of the physical environment. 6. May provide opportunity to conduct an urban mission and develop urban expertise. 7. Frequent changes and uncertainty stresses mental and physical toughness.
Add Urban Operations	- Directly trains urban expertise.
Enhance Instructor Interaction	<ol style="list-style-type: none"> 1. Directly develops every one of the required skills. 2. Essential for executing every one of the recommendations.
Sustain the Physical and Mental Rigor	- Directly develops physical and mental toughness.

GLOSSARY

Battlespace. The conceptual physical volume in which the commander seeks to dominate the enemy. It expands in relation to the commander's ability to acquire and engage the enemy, or can change as the commander's vision of the battlefield changes. It encompasses three dimensions and is influenced by the operational dimensions of time, tempo, depth, and synchronization. It is not assigned by a higher commander nor is it constrained by assigned boundaries.

Combat Arms. Units and soldiers who close with and destroy enemy forces or provide firepower and destructive capabilities on the battlefield. The included branches and functions are: Air Defense Artillery, Armor/Cavalry, Aviation, Field Artillery, Infantry, Special Forces, and the Corps of Engineers.

Combat Arms Skills. The general skills required by junior leaders of the combat arms branches to successfully win the close combat fight.

Doctrine. Fundamental principles by which the military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgment in application.

Fragmentary Order. A form of operation order which contains information of immediate concern to subordinates. It is an oral, a digital, or a written message that provides brief, specific, and timely instructions without loss of clarity. It is issued after an operation order to change or modify that order or to execute a branch or sequel to that order.

Future Operational Environment. The complex environment expected for operations beyond the year 2003, which pits Legacy and Objective Forces against asymmetric and undefined threats throughout the full spectrum of conflict.

Legacy Force. The current Army force, equipped with vehicles such as the M1 tank and M2 Bradley, that will be recapitalized with more modern technology, to include digitization. This force will remain functional until at least the year 2015

Objective Force. The future Army force, which will consist of entirely new vehicles and technologies. It will be fielded after the year 2010 and will meet the concept requirements identified in the *Concepts for the Objective Force* white paper.

Tactical level of war. The level of war at which battles and engagements are planned and executed to accomplish military objective assigned to tactical units or task forces. Activities at this level focus on the ordered arrangement and maneuver of combat elements in relation to each other and to the enemy to achieve combat objectives.

Tactics. The art and science of employing available means to win battles and engagements.

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